



## INFLUENCE OF NEW TECHNOLOGIES ON THE JUDICIARY: CHALLENGES AND PERSPECTIVES



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### ABSTRACT

The technological changes that exist in the Judiciary in recent years have caused advances in the form of access to justice actions and in the agility of public processes. This became even more present with the COVID-19 pandemic, which caused isolation to prevent the spread of the virus, so that the various sectors made adjustments, including the judicial system, through the new strategies that were implemented. One of the points that were fundamental for the introduction of technology in the judicial system determined bases and methods of digital innovation in this area, impacting the judiciary in a positive way, such as in the agility of processes, transparency and access to justice. Thus, the present study justifies the need to discuss the influence of new technologies on the judiciary, because, although digital access is a facilitator and brings numerous benefits, it also attributes the need for cybersecurity systems to protect sensitive data contained in judicial proceedings. In this sense, the article aims to identify the impacts of new technologies on access to justice and the exercise of jurisdiction. This article is a literature review developed through a reading of scientific articles and documents that deal with the subject, seeking a better understanding of it, selecting 8 articles and analyzing it for the development of the study, from which the data will be extracted. The use of technology in the judiciary has contributed to the agility of processes, the use of artificial intelligence in the area of the judicial system allows it to be more efficient, automate tasks, classification of legal documents and their analysis, among others, in addition to minimizing costs. Therefore, the study seeks to reflect on the influence of technology on the Judiciary, and it is essential that more studies be carried out on the subject in order to discuss more clearly and more knowledge for the awareness of society. It is hoped that the discussion of the studies will promote reflection on the importance of technology and that it will be applied appropriately.

**Keywords:** Artificial intelligence. Judiciary. Modernization. Digital process. Technology.

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## INTRODUCTION

The technological changes that exist in the Judiciary in recent years have caused advances in the form of access to justice actions and in the agility of public processes related to the competent bodies. This became even more present with the COVID-19 pandemic, which caused isolation to prevent the spread of the virus, so that the various sectors made adjustments, including the judicial system, through the new strategies that were implemented (Rosa et al., 2021).

One of the points that were fundamental for the introduction of technology in the judicial system is defined according to the enactment of Law No. 11,419, established in 2006, which determined bases and methods of digital innovation in this area, with emphasis on the rules based on ethical precepts for the use of electronic means designated for the implementation of processes carried out digitally. Therefore, technological innovations have had a positive impact on the Judiciary, such as in the agility of processes, transparency and access to justice (Dantas; Braz, 2022).

The National Council of Justice established Resolution No. 370, in 2021, based on the field of communication strategy, with the objective of promoting strategies to direct the strategies for the implementation of technology in the judiciary, through innovative actions and solutions that encourage this advancement in the system. In addition, the objective is to carry out, through methods that use the digital medium, actions and systems that can increasingly improve the technological evolution within which it is present today. The purpose is to promote user satisfaction, as well as transformation and incentive for them to make use of the digital environment in society, allowing access to all (Monte, 2023).

As a result, artificial intelligence has been increasingly used, which consists of a field of technology with an emphasis on the development of machines that aim to perform cognitive activities that would be done by man, commonly associated with problem solving. In addition, it has the function of artificially performing the functions of data analysis and perception of information, replacing human activities (Berzagui; Silva, 2022).

However, the transition to a digital environment also presents challenges, such as cybersecurity, because, due to the implementation of electronic processes in the Judiciary, citizens' data has been increasingly discussed. However, these innovations make it more precise in the progress of processes, reducing the use of paper and expenses, with regard to the need to maintain physical documents and data, as well as remote access to processes by the parties involved in legal processes (Vasconcellos, 2023).

Another point to highlight is the transition to a format that is digital, so that it presents several challenges, especially with regard to the preparation and adaptation to these

innovations for all those who work in this area, as well as the need to invest in updating systems, with a change from the physical to the digital environment. For this to occur correctly and with the minimum of complications, it is necessary that legal professionals are trained to handle technological means. In addition, the factor that is fundamental in this technological advancement in the judicial system is the guarantee that user data is protected, as security is essential for there to be credibility, in addition to maintaining legitimacy (Gabriel et al., 2021).

Thus, the present study justifies the need to discuss the influence of new technologies on the judiciary, because, although digital access is a facilitator and brings numerous benefits, it also attributes the need for security systems, because to present the importance of adapting to these means, it is essential to highlight the concern with data protection, so that the information is protected. Therefore, investments in this process must always be made, so that the judicial system in a digital way presents reliability and that technological innovations become a benefit to its users.

It is important to emphasize that justice has increasingly adapted to technologies, which becomes a path of no return, however, it is necessary to evaluate the situation of those who do not have access to these means, such as internet connection, electronic device, which is the case of cell phones or notebooks, applications or other technologies, and there should be a discussion by the bodies about covering society to ensure access to innovations introduced in the judicial system.

In this sense, this article aims to identify the impacts of new technologies on access to justice and the exercise of jurisdiction.

## **METHODOLOGY**

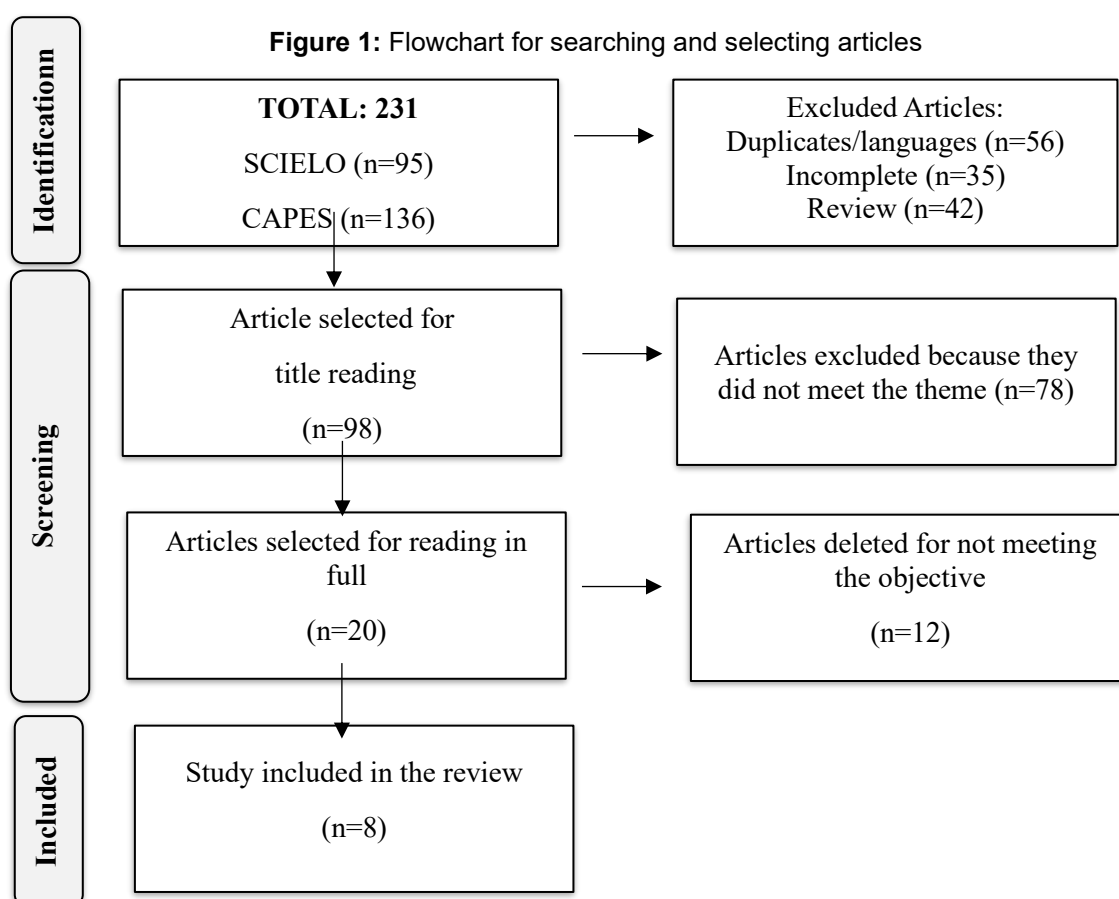
This article is a literature review developed through a reading of scientific articles and documents that deal with the subject, seeking a better understanding of it, through studies by authors and researchers in the area, through analyses that use correlations to study relationships and contextualize through the discussion of the subject (Casarin et al., 2020).

A bibliographic survey was carried out in the databases with the theme "influence of new technologies on the judiciary" and the discussion on the subject. In the development of the literature review, it was done by searching for articles using the following databases: SCIELO- Scientific Electronic Library Online, Coordination for the Improvement of Higher Education Personnel (CAPES) and other journals in the area of Law. Through consultation of the descriptors in Health Sciences (DeCS), they were defined: technology, digital and justice, obtained through the logical operators AND and OR.

The study is based on research through scientific articles selected from the previous reading of the abstract, and the research cut is limited to the last 5 years. Full articles published between 2021 and 2025 and published in Portuguese were included. Monographs, expanded abstracts, theses, dissertations, annals of events and those that did not correspond to the search date were excluded.

A total of 231 studies were found, and the reading and interpretation were carried out for selection, among which 8 articles were selected. Therefore, a complete and detailed reading of these studies was made, and the analysis was made for the development of the study, from which the data will be extracted.

The selected studies will be inserted through tables for better understanding by the reader using the PRISMA 2020 flowchart (figure 1) and the table with the following data: author and year, methodology, objective and final considerations, presenting the results of the searches carried out in each database.



**Source:** adapted from PRISMA (2020).

## RESULTS

After searching for studies, a total of 8 relevant scientific documents were selected, referring to scientific articles published in the database. These studies are important for the construction of the study in question, structuring a solid basis for the scientific scope. The

choice of articles was judicious, taking into account recent publications and the credibility of the sources.

For the organization of the data, a process was followed to analyze each one, verifying the methodology, results and considerations.

A total of 231 articles were identified, of which 95 were in the SCIELO database and 136 were in CAPES. Of these, 133 were excluded due to duplicity, because they were in other languages, because they were incomplete or because they were reviewed.

For the screening, 98 were selected to read the title and abstract, and 78 were excluded because they did not meet the theme. Subsequently, after the stages, 20 were selected for reading in full, in which 12 were excluded for not meeting the objective, and 8 studies were included because they were part of the sample and the discussion was made. Chart 1 classifies the distribution and presents the selected articles according to the authors and year, title, objectives, type of research and main findings.

**Table 01** - Summary of the articles included

| N | AUTHORS/<br>YEAR                  | TITLE  | GOALS   | TYPE OF<br>RESEARCH  | KEY FINDINGS   |
|---|-----------------------------------|--|---|--|--|
| 1 | Berzagui<br>Silva<br>et al., 2022 | The use of artificial intelligence to increase the efficiency of the judiciary | Verify, based on the Economic Analysis of Law, whether the use of AI can bring an increase in efficiency to the Judiciary.        | Inductive method, supported by the technique of bibliographic research.          | From the perspective of the AED, it is understood that the efficiency of the Judiciary is related to the increase in the number of cases judged, combined with the decrease in the procedural processing time. It is noted that the use of AI implies an increase in the efficiency of the Judiciary, as it provides greater procedural speed and the expansion of the total number of cases judged, even if it is not directly applied in the decision-making activity. |
| 2 | Bordoni;<br>Tonet,<br>2021        | Innovation and technology in the judiciary                                     | Recognize the innovations, artificial intelligence projects and regulations on this subject, available and used by the Judiciary. | Descriptive and analytical study, through bibliographic and documentary research | It is concluded that projects aimed at the use of technology, especially those related to artificial intelligence, are already a reality in the national courts, as well as there are laboratories aimed at researching solutions that seek to improve public management. It also innovates in the standardization of the use of artificial intelligence, with CNJ   |

|   |                            |  |  |   |   |
|---|----------------------------|--|--|---|---|
|   |                            |  |  |   | Resolution No. 332/2020.  |
| 3 | From the Rose et al., 2021 | The digital issue: the impact of artificial intelligence on Law                          | To take a different approach to the current way of operating Brazilian law, under the lens of Artificial Intelligence  | Inductive method, Bibliographic research                    | The urgency of thinking about new strategies for pointing out the digital vision, as well as adapting both the legal operator and the system itself, to the new technologies of artificial intelligence. The relevance of the theme is evident in view of the transnational repercussion of technological innovations, as well as the social impact of this technology on the law as a whole  |
| 4 | Hymn; Wedge 2021           | Adoption of technologies from the perspective of legal professionals.                    | Contribute to the visualization of different aspects of the adoption of technology by the Brazilian Judiciary  | Revision Bibliographical                                    | The work highlights the need for standardization of the electronic judicial process, but not necessarily through the development of a single system. The complexity of the matter and the amounts already invested in the various existing systems support the creation of a standard user interface, which, without loss of knowledge and investment, could be evaluated in order to enable law firms to develop the electronic judicial process, under the responsibility of the Judiciary. |
| 5 | Melo et al., 2022          | Analysis of new technologies by the judiciary and the reasonable duration of the process | To carry out an analysis of the influence and use of technology by the Judiciary, in order to ensure that the judicial process has a reasonable duration under the terms of the Federal Constitution | Theoretical research, with the use of the deductive method, | In the end, it was possible to see that the use of new technologies safeguarded the speed in the processing of judicial proceedings, as well as made life easier for users to follow-up, petition and at the same time hold hearings remotely   |

|   |                       |  |   |  |   |
|---|-----------------------|--|---|--|---|
| 6 | Nistler et al., 2024  | The impact of the use of artificial intelligence on decision-making in the Brazilian judiciary: a comparative perspective between technology and justice | Verify the state of the art regarding the analysis of the impacts of the application of artificial intelligence as an active tool in decision-making within the scope of the Judiciary. | Revision Integrative bibliography                      | It should be noted that automation in the Judiciary, even if it speeds up the process, compromises subjective justice by relying too much on a set of algorithms, distancing the human heart from judgment, relativizing a right that is at stake.  |
| 7 | Saints; Botelho, 2023 | The influence of new technologies on criminal law – challenges and perspectives  | To analyze how new technologies have impacted Criminal Law, both in the field of crime prevention and investigation and in the application of criminal sanctions.                       | Research, bibliographic and documentary.               | The research reinforces the need for a legal environment that is adaptable and proactive in the face of technological changes, thus ensuring the protection of individual rights and the effectiveness of the penal system in a world of constant technological evolution.  |
| 8 | See et al., 2023      | Judiciary in the digital age: the impact of new information and communication technologies on the exercise of jurisdiction                               | Identify the impacts of new information and communication technologies on access to justice and the exercise of jurisdiction  | Hypothetical-deductive method. Bibliographic research. | It is hypothesized that the Judiciary, as an instrument for the protection of fundamental rights and personality, when exercising decision-making, based on information and communication technology instruments, promotes the expansion of access to justice and the optimization of the public service of justice, provided that the legal position of the digitally excluded is respected. |

Source: Survey data, 2025.

## DISCUSSION

### OVERVIEW OF ACCESS TO JUSTICE IN BRAZIL

Technology is present throughout our daily lives, being important and necessary to streamline processes, and urgency is necessary to update the Brazilian legal apparatus (Rosa et al., 2021). Currently, the average is that about 50% of the courts in Brazil make use of artificial intelligence, which can be observed in the criminal process, with regard to the automatic distribution, proposal of minutes for the case under analysis, the verification of conjectures in requests, among others, which speed up actions in the judicial system (Dias et al., 2023).



With the emergence of the Fourth Industrial Revolution, characterized by the integration of digital and other technological innovations, including artificial intelligence, there was an impact on society on how to deal with this advance (Souza; Oliveira, 2021). As a result, there were challenges faced to adapt to these innovations, such as resistance to change, lack of knowledge, and social inequality (Siqueira et al., 2023).

However, the Fourth Industrial Revolution has facilitated digital access in the judiciary, to have a greater reach to society, reducing inequalities in the social environment. In view of this, the judicial system needs to increasingly update in terms of technological means, and must be increasingly modernized. There must be an understanding that globalization has brought innovations to society, so that there has been improvement in all means (Soares, 2021).

In Brazil, there are several events that were characterized by being contradictory periods, whether in the political sphere, access to basic needs, among others. Among these points, accessibility to justice, which has always had its impasses. Despite everything, even in a limited way, it is plausible to consider the bases on the principle of guaranteeing the judicial route, not only related to free access, but with regard to the analysis carried out by the judiciary (Vasconcellos, 2023).

But regarding these impasses, the Ethics Guidelines for Trustworthy AI study, carried out by the European Commission in 2019, was necessary for discussion about the use of artificial intelligence, whether it is considered safe and its importance. In order for it to be used correctly, it must comply with certain requirements, such as following regulations, complying with ethical principles, preserving data and avoiding damage (Berzagui; Silva, 2022).

With this, an ethical letter was issued regarding the use of technologies, especially with regard to artificial intelligence in the judicial system. Thus, the document (Siqueira et al., 2023). The document highlights the benefits of technological advances for judicial processes, following ethical values, with digital access being the basic method for judicial decision-making, and it is essential that the right to a fair analysis is guaranteed (Melo et al., 2022).

In this way, these components must act together and crucial points act on technological advances, so that it can be done safely and following the correct principles. Therefore, its use in the Judiciary must be done in accordance with these regulations, in its use in electronic judicial proceedings, being essential for their agility, so that there is security in their applications (Peixoto, 2021).



The Resolution of the National Council of Justice No. 332/2020 on Artificial Intelligence in the judiciary is based on the guidelines of the European Charter of Ethics, details the importance of transparency, impartiality and ethics, and there must be security in user data (Souza; Oliveira, 2021).

These discussions have intensified in recent years due to the fact that in 2020 the COVID-19 pandemic was decreed by the World Health Organization, causing a change in the various sectors of society, leading them to adapt through social isolation, which was important for the control of the disease. Among these, there was an adaptation in the Judiciary, with an update to technological means, being a solution to allow society to have access to justice (Zanferdini et al., 2023).

In this way, the activity carried out by the lawyers was through online platforms through video call, with hearings being held for the resolution and mediation of the cases, such as custody hearings. This mode of hearing made by virtual platform remained even after the return of social life, extending to the present day, with this modernization, the reduction of long processes in the legal sphere can be noticeable (Santos; Botelho, 2023).

According to the National Council of Justice, 9,378,963 sentences, 14,647,813 decisions, and 24,638,388 orders were handed down in Brazil's courts in the months of March to July 2020. These data highlighted the alternative of continuing conflict resolution through the process carried out by electronic means. Because of this, solutions were established with the use of technology to hold hearings, as a way to reduce these numbers (Brasil, 2023).

On January 28, 2021, the National Strategy for Information and Communication Technology of the Judiciary was constituted through the National Council of Justice, aiming to improve management, increase the satisfaction of those who use the processes of the Brazilian judicial system. In addition, it aims to make digital change through data security, meeting the necessary requirements following ethical precepts (Siqueira et al., 2023).

In 2022, the Judiciary highlighted that the year ended with 77.3 million cases in progress, waiting for a definitive resolution. Of these, 19.8% remained suspended or are temporarily archived, awaiting its conclusion. These data are worrying in the system, and there needs to be agility and speed to reduce these obstacles to optimize and promote the quality of service (Anjos et al., 2021).

The Judiciary must guarantee society access to justice, and the State is responsible for avoiding complications and minimizing impediments to the guaranteed rights of citizens. However, these rights and guarantees should not be limited, but rather increasingly extended to everyone, so that the jurisdiction exercises its *de facto* purpose (Soares, 2021).

The performance of these actions, which aims to reduce the duration of the process and the automation of processes, determined that the management of the courts should be modernized into a high-level service, to offer assistance, as well as conduct the development and maintenance of complex computer systems (Melo et al., 2022).

## PERSPECTIVES ON TECHNOLOGICAL INNOVATIONS IN THE JUDICIARY

Criminal Law is in constant adjustment and evolution, so that it is necessary to follow the changes that occur in society, especially in the technological environment. However, there are challenges in the area, making it difficult to advance in the processes to adapt to technologies, such as failure in the legislation regarding virtual crimes, adaptation of users to digital media, accessibility and fear of personal data (Santos; Botelho, 2023).

The use of technology in the judiciary has contributed to the agility of processes, the use of artificial intelligence in the area of the judicial system allows it to be more efficient, automate tasks, classification of legal documents and their analysis, among others, in addition to minimizing costs (Silva, 2021).

One way to expand these rights in the midst of the technology that has been propagating in recent years is the application of systems for processing legal proceedings associated with the implementation of online systems to ensure access to procedural data and documents, making the technological means an advance to promote agility, effectiveness and transparency in the legal system of Brazil (Bordoni; Tonet, 2021).

In addition, the digitization of lawsuits and the introduction of methods such as videoconferences, replacing hearings and testimonies, have played a significant role in facilitating the judicial process, allowing the elements involved to achieve access to justice more quickly and effectively (Mendonça et al., 2023).

The Judiciary is responsible for protecting rights and resolving conflicts, so that there is protection and freedom for citizens that must be maintained by the State. The complexity of this system is due to the organization in which it must be maintained, following the molds according to article 92 of the Constitution of Brazil, maintaining the precepts that guarantee the rights of society (Peixoto, 2021).

In this regard, Salomão (2022) highlights through the Fundação Getúlio Vargas research report regarding technology associated with the Judiciary, especially with the use of artificial intelligence today, in order to verify the results through the mapping of 47 courts that used artificial intelligence:

The growing number of projects that incorporate aspects of AI already implemented or under development demonstrates the search for greater efficiency within the

Brazilian Judiciary. Such initiatives have proven to be inevitable to maintain the system's capacity to absorb an increasing number of lawsuits, combined with the need to reduce personnel costs, and to increase transparency in the processing of processes. This fact reinforces the need and the characteristic of structuring and automating workflows involving the analysis and sorting of a massive amount of text documents. It is believed that, as such initiatives gain more strength, the greater the need for investments in high-performance processing infrastructure within the Judiciary (Salomão, 2022, p. 37).

It is important to evaluate the spaces, allowing society to know about technology in criminal proceedings, developing strategies to reduce linguistic conflicts and promote legal support to those who need it. This can be done through institutions that grant rights to those who are vulnerable, which is the case of the Public Defender's Office, making it more accessible through technology (Paschoal, 2021).

To deal with certain complications and barriers, it is essential that legal professionals are responsible for data protection, allowing digital access and making it accessible to society. In addition, implement actions to maintain the integrity of the process, so that the system does not have flaws, thus establishing veracity in legal relationships (Mendonça et al., 2023).

With this, the artificial intelligence systems that are currently used and were designed by the Federal Supreme Court (STF) in association with the University of Brasília consist of the Victor Project, which has been increasingly implemented in the judicial system. This technology was designed with the purpose of analyzing the appeals submitted to the higher court of the Judiciary, based on the standards of the processes, and these analyzes are freely organized by artificial intelligence (Dias et al., 2023).

Victor's goal is the quality and agility of processes and analysis in the judicial system, reducing the delay in processes, changing physical data into digital ones (Nistler et al., 2024). The Getúlio Vargas Foundation this artificial intelligence system provided good results, with an improvement in productivity, causing a decrease in time, such as from an average of 40 minutes to 10 seconds (Salomão, 2021).

With technological innovations, there was agility in judicial processes, in addition to allowing faster data analysis, since the Brazilian judicial system has long waiting lines. When technology is introduced, there is an improvement in the functioning of public agencies due to the reduction of delayed processes, being observed through the positive results in which lawyers evaluate judgments more effectively (Bordoni; Tonet, 2021).

According to Hino and Cunha (2021), technological advancement is an innovative way to transform the reality of the Judiciary and capable of implementing fundamental rights actions, whether through lawsuits or any administrative activity in the Judiciary. Thus, Melo

et al. (2022) highlight that technological tools have their benefits, but that they must follow the rights of those who use them for lawsuits.

In this way, there must be a cost-benefit ratio, observing the impacts, so that the positive results are greater than the negative ones, so that it needs to be used responsibly within a broad aspect of access to justice (Rosa et al., 2021). The example of this is that despite making processes faster in everyday life, there may be an increase in production and implementation costs and the possibility of data leakage, and agencies must be aware of security methods (Nistler et al., 2024).

According to the results of Siqueira et al. (2023) pointed out that with the modernization of the judiciary, there were points that were not analyzed, such as the hiring of labor, as the discussion that has been going on since the Industrial Revolution is the replacement of the worker. But Berzagui and Silva (2022) point out that in the legal field, artificial intelligence does not replace professionals, on the contrary, it helps in processes, in addition to enabling them to perform actions in a better way and performance, minimizing repetitive activities and giving more emphasis to those that need more attention. What should be evaluated is the migration to the most qualified activities and that it is done in association with technology, developing the best performance.

It is important to note that the technology has been used in the judicial system since 2004, being applied by the Federal Regional Court of the 4th Region, when the electronic process was introduced, which replaced the physical ones. This made the processing occur faster compared to physical processes, making it easier for lawyers to conduct petitions over the internet (Machado et al., 2021).

Law No. 11,419 established in 2006 had more advances, such as the permission to use electronic signatures in judicial proceedings, through registration with the Judiciary, containing the subpoena process, summonses and also notifications through electronic means. It was approved, highlighting the computerization of the judicial process, and the change brought improvements in the processes (Yeung; Silva, 2024).

As a result, the Judiciary began to gradually introduce the electronic process into the judicial systems. However, each court accepted the implementation of its own systems for the organization of these processes, with different attributes and conditions. Because of this, in December 2013, the Brazilian Bar Association (OAB) together with the National Council of Justice, following Resolution No. 185, implemented the Electronic Judicial Process (PJe) system, with the purpose of adopting the technologies, with encryption processes (Hino; Cunha, 2021).

According to Berzagui and Silva (2022), the computerization of the judicial process is seen as a modernity, in which electronic processes are important to make actions fast and with a reduction in the risk of losing the physical process. Thus, Rosa et al. (2021) add that computerization causes the modernization of the Judiciary, allowing the efficiency of the system.

It is important to emphasize that the adoption of technological innovations in the judicial system favors, through computerization, sustainability, that is, it reduces the use of paper due to the adoption of the electronic system, which reduces the amount of waste, preserves nature, reduces environmental impact (Oliveira, 2022).

In the administrative issue, the National Council of Justice played an important role, since it invested in interoperability, making the systems previously used in the Courts update according to the existing functionalities in the Electronic Judicial Process (PJe). This process helped both the activity of civil servants and lawyers, who do not need to adapt to different specifications and layouts of each system, making it easier to handle (Nistler et al., 2024).

The slowness and bureaucracy of the judicial system have promoted the advancement and search for electronic proceedings with the use of artificial intelligence, based on basic dilemmatic issues, on the one hand it shows a high willingness to evaluate elements on a massive scale, identify patterns, predict results and, ultimately, assist magistrates in making complex decisions (Bordoni; Tonet, 2021).

In recent years, the use of technology has also become more intense with the use of robots to capture information, with processes of replication of information between the judicial system and law firms, with the almost mandatory use of automated management systems in offices and courts, and also with the use of two video monitors in order to view the process and develop the piece with a single computer (Santos; Botelho, 2023).

In the studies by Hino and Cunha (2021), the authors complement these challenges by reporting that the new practices raise points for reflection, such as the risk generated by agility, with the possibility of compromising the quality of decisions, resulting from the lack of maturity in the subject before the positioning, whether of the lawyer or the magistrate. While Nistler et al. (2024) point out that the problem occurs with the need to develop skills related to the examination of digital documents, which can compromise the quality of decisions, as well as the lack of knowledge of the system.

In addition, the mandatory use of the electronic judicial process may cause some professionals to stop taking the rights of their clients to the Judiciary, seeking the solution of the dispute through conciliation between the parties, considering the best way to settle

conflicts. However, due to the use of standard texts or challenge models, without respect or analysis of the individual characteristics of each process, there may be flaws and problems in this regard (Siqueira et al., 2022).

On the other hand, it obscures the subjectivity of each individual and advocates efficiency, which, in certain cases, may be too contrary to what is expected of justice, that is, as an element of potential transformation of society, beyond algorithms (Santos; Botelho, 2023).

Berzagui and Silva (2022) highlight that through technological advancement, there is also discussion about certain points, such as fake news, the use of artificial intelligence, data leakage, among others. Therefore, Santos and Botelho (2023) add that data confidentiality must be done through cooperation with public security are necessary points to ensure that individuals' data is secure, thus, data analysis is carried out without it being possible to bring complications.

However, the slowness in the progress of judicial proceedings is the main problem among the challenges faced by the Brazilian judicial system, so that in 1984, the delay in the processing of certain cases derived from an extensive list of problems, which included flaws in the judicial organization, gaps in the professional training of magistrates and lawyers, precarious conditions, in which the processes were ineffective (Siqueira et al., 2023).

However, the depth of decision-making by the Judiciary is relativized by the mechanicality of artificial intelligence, since it subjects the decision-making process to a flaw, based on the algorithmic analysis of a database, which, in many cases, can harm the fair decision by removing from human hand the analysis of the details of the concrete case, which can lead, especially in the case of higher courts, to the realization of injustices that were sought to be avoided or reversed (Nistle et al., 2024).

There must be an understanding that the effectiveness of technology in the Judiciary must be due to the resolution of lawsuits, which also needs to reduce its operating cost, in addition to increasing the number of cases judged and reducing the time until the final judicial delivery, leading to the resolution of problems (Berzagui; Silva, 2022).

## CONCLUSION

In view of the entire context studied, it is noteworthy that the Judiciary needed to adapt to changes in the exercise of judicial relations and with the technologies that have been established in society in recent years. Among these adaptations, there was the implementation of technological innovations in the judicial system, to facilitate access and



streamline processes, in order to promote digital access for the resolution of problems and execution of actions carried out by the judicial system.

The evolution and speed with which technologies are introduced into society's daily life, as well as the improvements, comes with the difficulties with it, especially in relation to society's adaptation to these innovations, even more so when it comes to data, such as digital access and other actions by the judicial system. However, the advancement of technology has provided the judiciary with benefits, generating efficiency in the new ways of conducting processes, in which technology is a great factor that helps in the evolution of society, and in the judiciary it is no different, being important in collaborating so that decisions and justice minimize errors and optimizing time.

Throughout this article, it can be observed that the positive impacts outweigh the negative ones, aiming at the search for the efficiency of justice, however, it is important to emphasize that it does not exempt the constant analysis of data, and there must always be an evaluation so that the use of technology is associated with human beings. All these points are of great importance and therefore the relevance of the subject to the legal area, so it is essential that there can be an understanding of these processes and that there can be the study and research of the legal area.

Therefore, the study seeks to reflect on the influence of technology on the Judiciary, and it is essential that more studies be carried out on the subject in order to discuss more clearly and more knowledge for the awareness of society. It is expected to incite scientific production on the subject, emphasize all the vulnerable points to be sought for advances in innovations in society.

It is hoped that the discussion of the studies will promote reflection on the importance of technology and that it will be applied appropriately. In addition, such findings are necessary to encourage other studies on the subject, so that there is more and more debate in academic institutions and in legal spheres, so that knowledge of strategies to encourage digital access based on ethics and morals is promoted.

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